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August 26, 2002

**Mary L. Henze**  
Executive Director  
Federal Regulatory Affairs

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Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 Twelfth Street, SW  
Washington, DC 20554

Re: Docket 96-98; Notices of Network Change

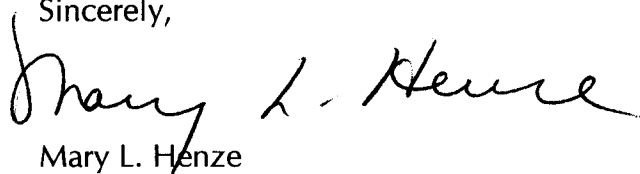
Dear Ms. Dortch,

On August 23, representatives from BellSouth met with Competition Policy Division staff to discuss recent BellSouth network disclosure submissions and the company's policies for replacing copper with fiber. The meeting was scheduled at the Division's request.

Attending the meeting from the Division were Michelle Carey, Robert Tanner, Tom Navin, Brent Olson, and Jerry Stanshine. Participating in-person for BellSouth were Mary Henze and Glenn Reynolds. Participating via telephone for BellSouth were Keith Milner, Randy Sanders, Stephen Earnest, John Jackson, Michael Zitzmann, Tommy Williams, Pat Caldwell, Debbie Ogle, and Cindy Ford. Presentation material used during the meeting is attached.

This notice is being filed pursuant to Sec. 1.1206(b)(2) of the Commission's rules. If you have any questions concerning this filing, please do not hesitate to contact me.

Sincerely,



Mary L. Henze

cc: M. Carey  
R. Tanner  
T. Navin  
B. Olson  
J. Stanshine

# BellSouth Ex Parte

BellSouth's Policy for Replacing  
Copper with Fiber

*August 23, 2002*

# Summary

- BellSouth's fiber deployment decisions are based upon economic reasons.
- Replacing copper with fiber is a standard practice.
- There are a variety of activities that trigger replacing copper with fiber (e.g., road work, defective plant, growth).
- BellSouth has ongoing efforts to work with CLECS relative to these changes.

# Fiber Deployment Decisions

- BellSouth's fiber deployment is governed by its *Loop Technology Deployment Directives* to insure that decisions are based upon careful analysis of economics and technology appropriate for each case.
  - Deployment decisions are based on economics.

# Triggers for Replacing Copper with Fiber

- The following types of activities may result in removing copper facilities from service at an existing service location.
  - Public Requirements (e.g., road work or road moves)
  - Non-Discretionary Replacements (e.g., damage to plant cause by storms)
  - Rehabilitation of High Operating Cost Distribution Plant
  - Feeder Route Facility Additions with Digital Loop Carrier

# Triggers for Replacing Copper with Fiber

## **Public Requirements**

- BellSouth is often required to remove cables from the path of public works projects such as highway construction.
- The scope of these public works projects is often large enough to require construction of new facilities for substantial distances so that customer lines can be removed from the cables interfering with the public works project.
- The new facilities are constructed using the technology that provides the lowest long-term cost, and this will generally be fiber cable and digital loop carrier.
- Once service has been moved from the interfering cable to the new digital loop carrier facilities, the interfering cables can be removed.

# Triggers for Replacing Copper with Fiber

## **Non-Discretionary Replacements**

- When cables are damaged, by natural occurrences like forest fires or storms or by some human activities like motor vehicle or construction accident, the damage is sometimes so extensive that repairs are not a practical alternative.
- Even when repairs are made for individual damage events, the effects of those events accumulate over time to render the cable in such poor condition that maintaining good quality service through that cable is no longer a reasonable alternative.
- Whether severe damage or accumulated damage is the cause of the replacement, new facilities must be constructed and service moved from the damaged cable to the new facilities.
- The new facilities are constructed using the technology that provides the lowest long-term cost, and this will generally be fiber cable and digital loop carrier.

# Triggers for Replacing Copper with Fiber

## **Rehabilitation of High Operating Cost Distribution Plant**

- While rare under current conditions, fiber distribution (FITL, FTTC) is sometimes used as a replacing facility for high operating cost copper distribution cables.
- There are occasions where distribution cables, through aging and changing service requirements, require very high maintenance and rearrangement costs to continue to provide high quality service and new fiber distribution can be extended into the area at relatively low cost. This allows service to be moved to the fiber distribution and high operating cost copper distribution to be removed from service.
- More often, existing cables can be repaired or augmented to reduce operating costs.



# Triggers for Replacing Copper with Fiber

## **Feeder Route Facility Additions with Digital Loop Carrier**

- Feeder route capacity and forecasted service requirements are generally reviewed at least annually to insure that facility additions are made to meet service demand.
- An overall route plan is developed to provide additional facilities at all locations along the route where forecasted service requirements exceed existing capacity.
- New feeder facility additions are usually more economically provided using fiber cable and digital loop carrier. Due to the relatively high cost to initialize a digital loop carrier site compared to the costs to add capacity at a site, it is often more cost effective to place enough digital loop carrier facilities at a single site to satisfy facility requirements at several locations along the route.
- Then services at the digital loop carrier site can be moved from copper to digital loop carrier in sufficient quantity to allow the vacated copper facilities to be reallocated to other demand locations along the route.
- Since the copper cable is rearranged to be utilized at another location, it is no longer available to provide service where it had previously been used.

# Configurations for Fiber Feeder Placements

- Fiber feeder placements occur in one of two configurations:
  - *Overlay*, in which the fiber feeder is placed in parallel with existing copper feeder.
  - If the existing copper feeder is defective, impossible or uneconomical to maintain, or affected by a re-arrangement (e.g., a road move), BellSouth will *replace* the copper feeder with fiber and *retire* the copper feeder.

# Configurations for Fiber Feeder Placements

- **Digital Loop Carrier (DLC) in the *overlay* configuration**
  - In an *overlay*, both copper and fiber would remain in place. The DLC is spliced to spare cable complements and both DLC and copper pairs exist and are shown in LFACS.
  - If there are no spare cable complements or if copper pairs are needed to serve customers located closer to the central office, BellSouth's practice permits a "cable throw" to be performed. A cable throw results in distribution loop pairs, including "hot" distribution loop pairs, being cross connected to the derived loops in the new fiber feeder.
  - The old copper feeder loop is no longer capable of providing service and would be *removed* (e.g., if aerial or in conduit) or *abandoned* in place (e.g., if buried).

# Current Plans for Replacing Copper with Fiber

- Beginning 1/1/02 through 8/20/02, BellSouth posted ninety-three (93) Notices of Network Change regarding copper to fiber changes:
  - Twenty-seven (27) due to Public Requirements (e.g., road work)
  - Twenty-eight (28) due to Non-Discretionary Replacements (e.g., damaged plant)
  - Zero (0) due to Rehabilitation of High Operating Cost Distribution Plant
  - Thirty-eight due to Feeder Route Facility Additions with Digital Loop Carrier

# Current Plans for Replacing Copper with Fiber

- BellSouth has been replacing copper with fiber for years. The drivers for such replacement have not changed.
- Prior to two years ago, BellSouth filed Fiber Reports with the FCC. Fiber deployment continues to be reported in Annual Reports (ARMIS 43-08) filed with the Commission.
- BellSouth continues to use the Collaborative Meetings process to update CLECs regarding this type activity.
- In 2002, in addition to the collaborative meetings, BellSouth began utilizing the Part 51.325 – 51.335 Network Disclosure Process to provide this information to CLECs.

# Process of Providing Notice

- BellSouth notifies carriers of these changes via its publicly accessible Internet site via the Part 51.325-51.335 rules.
- When BellSouth utilizes the Short Term Notice Process under 51.333(a), carriers are also served copies of Notices via US Mail.

# Impact on CLEC Provision of DSL

- CLECs have options to provide DSL when specific copper feeder is no longer able to provide service.
  - CLECS may place DSLAM at Remote Terminal. (As BellSouth does.)
  - CLECs may request a Service Inquiry (SI) of BellSouth. SIs will result in BellSouth's engineer determining the status of any disconnected, but not retired, copper feeder. Such feeder will be made available to CLEC for use in providing CLEC service.
  - SIs are used for the designed copper type loops (for example, ADSL compatible and HDSL compatible). For the non-designed loops such as UCL-ND, the CLEC asks for the loop (via LSR) and BellSouth's engineer attempts to find suitable facilities. Determining if spare copper plant is available is part of the normal ordering and provisioning process. If special construction is applicable, BellSouth will so inform the CLEC.
  - BellSouth's understanding is that both SBC and Verizon similarly use the SI process to respond to CLEC requests.

# Efforts to Support CLECs

- BellSouth Developed Line Sharing In Collaborative With Interested CLECs
  - Kick off meeting in Atlanta 1/26/00
    - Twelve CLECs participated
  - First meeting on 2/2/00
  - Two sub-committees
    - Technical sub-committee
    - Systems/process sub-committee
    - Each sub-committee met one day each week
  - Beginning 4/12/00 consolidated into one committee
    - One full day each week



# Efforts to Support CLECs

- CLECs Requested Additional Line Sharing Options
  - Additional collaboratives established
    - Line sharing via a CLEC-owned splitter
    - Line sharing in DLC environments
      - Both collaboratives established late summer 2000
  - Collaborative web-site established late 2000
    - Collaborative minutes
    - Line sharing and line splitting process flows
    - Action item log
    - How to participate

# Efforts to Support CLECs

- BellSouth Initiated Line Splitting Collaboratives
  - Line splitting with BellSouth splitter
    - Established April 2001
  - Line splitting with DLEC splitter
    - Established summer 2001

# Efforts to Support CLECs

- BellSouth Collaboratives Today
  - Members agreed to combine into a shared loop UNE collaborative (one team)
    - Late 2001
    - Most of the line sharing and line splitting issues have been resolved
  - Approximately 150 collaborative meetings conducted